

REMARKSClaim Rejections – 35 U.S.C. §102

Claims 1-8 stand rejected under 35 U.S.C. §102(e) as being anticipated by Rava et al. (US 6,690,966).

Directing Examiner's attention to MPEP 2131, the threshold issue under Section 102 is whether the Examiner has established a *prima facie* case for anticipation. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987)". "The identical invention must be shown in as complete detail as is contained in the ...claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1566 (Fed. Cir. 1989).

Amended Claim 1 recites a system for analysis of an in vivo biological sample, comprising "a middle infrared radiation source configured to provide radiation in a spectral range of about 2.5 microns to about 20 microns; an optical fiber operatively coupled to said middle infrared radiation source, said optical fiber being substantially transparent in said spectral range of about 2.5 microns to about 20 microns; an unclad interchangeable fiberoptic probe associated with said optical fiber and configured to direct radiation from said radiation source to said in vivo biological sample, wherein said fiberoptic probe is configured to be in direct noninvasive contact with said in vivo biological sample and operate in attenuated total reflectance mode"

Applicant respectfully submits that Rava fails to disclose the system for analyzing an *in vivo biological sample* using a *middle infrared radiation source* and an unclad fiberoptic probe configured to direct radiation from the radiation source to the in vivo biological sample, wherein the fiberoptic probe is configured to be in direct *noninvasive*

contact with the in vivo biological sample and operate in *attenuated total reflectance mode*, as required by Claim 1.

Examiner cites Column 12, lines 61-63 as evidence that Rava discloses a system for analysis of an in vivo biological sample using infrared attenuated total reflectance measurements, where the infrared source is a middle infrared radiation source which is used with a Fourier transform spectrometer. While this cited passage may disclose the use of mid-infrared ATR spectra, it does not disclose a noninvasive analysis of an in vivo biological sample to go along with it. Instead, the paragraph preceding this passage describes the method involving mid-infrared ATR spectra as an invasive analysis of an in vitro biological sample, explaining that the “medial layers of a normal arteries and the necrotic cores of atheromatous plaques were exposed by blunt dissection and spectroscopically examined.” (Col. 12, lines 56-58). This “blunt dissection” does not constitute noninvasive contact as required by Claim 1.

Furthermore, the extensive sample preparation discussed in Col. 12, lines 61-67 and Col. 13, lines 1-13 suggests that the method in Rava cited by Examiner involves in vitro analysis, not in vivo analysis, as Rava describes that the “sampling area was purged with dry nitrogen gas to control background absorption from atmospheric water vapor and CO₂ ... A 5 gram weight placed on the tissue sample ensured uniform sample contact with the ATR element.” The only mention of in vivo analysis is with respect to the “near IR FT-Raman method” such as the method discussed in Col. 11, lines 66-67 and Col. 12, lines 1-11.

Applicant cannot find, nor has Examiner cited, any disclosure in Rava of in vivo and noninvasive analysis coupled with the use of mid-infrared radiation, attenuated total reflectance measurements, and a Fourier transform infrared spectrophotometer, as required by Claim 1.

Therefore, Applicant respectfully submits that Rava fails to teach each and every element of Claim 1, and that Claim 1 is not anticipated by Rava.

Since Claims 2-5 depend from Claim 1, Applicant respectfully submits that Claims 2-5 are also patentable as they contain the same limitations as Claim 1.

The same arguments made above with respect to the patentability of Claim 1 are applicable to the patentability of Claim 6 as well.

Since Claims 7 and 8 depend from Claim 6, Applicant respectfully submits that Claims 7 and 8 are also patentable as they contain the same limitations as Claim 6.

Applicant respectfully submits that Claims 1-8 are currently in condition for allowance. Reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejections – 35 U.S.C. §103

Claims 9 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Rava.

Since Claims 9 and 10 depend from Claim 6, Applicant respectfully submits that Claims 9 and 10 are also patentable as they contain the same limitations as Claim 6.

Therefore, Applicant respectfully submits that Claims 9 and 10 are currently in condition for allowance. Reconsideration and withdrawal of this rejection is respectfully requested.

Amendments to the Claims

Applicant respectfully submits that the amendments to the claims find support in the specification as originally filed, and therefore, do not constitute new matter.

Applicant respectfully submits that the claims are currently in condition for allowance.

Applicant requests that this application be allowed. If the Examiner has any questions regarding this application, the Examiner may telephone the undersigned attorney at 775-586-9500.

Respectfully submitted,
SIERRA PATENT GROUP, LTD.

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A handwritten signature in dark ink, appearing to read 'Jonathan D. Hanish', written in a cursive style.

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